CLAIMS

It is claimed:

1.   An image forming apparatus having capability for forming images based on instructions from an information processing apparatus, the image forming apparatus comprising:

a paper feeder that is formed to enable feeding recording paper of several kinds that are different in size

a first detector that detects whether there is recording paper to be fed to the aforementioned paper feeder

a second detector that recognizes the size of the recording paper that is fed from the aforementioned paper feeder

a transmitter that transmits information on the sizes of recording paper that can be fed for image forming to the information processing apparatus responding to requests from the information processing apparatus.

2.   An information processing apparatus connected to an image forming apparatus, the information processing apparatus comprising

an apparatus selecting means that selects an image forming apparatus

a status request means that requests the status of each image forming apparatus

a receiving means that receives the status from each image forming apparatus

a display means that displays the status information of each image forming apparatus that is received by the receiving means

a print instruction means that can issue print instruction based on the status information of the image forming apparatus displayed on the said display means.

3.   The information processing apparatus of claim 2, wherein

the apparatus selecting means allows selection of multiple image forming apparatuses

the status request means can request the statuses of the multiple image forming apparatuses that are selected by the apparatus selecting means

the receiving means can receive status information from multiple image forming apparatuses

the display means can display status information form multiple image forming apparatuses.

4.   A memory media that stores software to control image forming apparatuses, the software comprising

a selection function that can select at least one of the image forming apparatuses responding to instructions of an application

a configuration function that can configure image-forming conditions of the image forming apparatuses

a request function that requests status information of the image forming apparatuses

a receiving function that receives status information from image forming apparatuses

a display function that displays the received status information.

5.   An image forming method of an image forming apparatus that executes image forming operation based on the instructions from an information processing apparatus, which:

receives requests for information on recording paper from an information processing apparatus,

transmits information on recording paper that includes at least information on sizes of recording paper that is available for image forming responding requests from the information processing apparatus, and

receives and executes print instructions from the aforementioned information processing apparatus after transmitting the aforementioned information on recording paper.

6.   An image forming instruction method of an image forming apparatus that executes image forming operation based on the instructions from an information processing apparatus, which:

transmits print instruction from an information processing apparatus,

requests information on recording paper to the specified image forming apparatus responding to the transmitted print instruction,

determines whether recording is available or not based on the requested information on recording paper,

sends print information from the information processing apparatus to the image processing apparatus when it determines recording is available, and

notifies the operator that recording is not available when it determines recording is not available.

7.   A method of operating an information processing apparatus comprising

receiving a print instruction for a print job, wherein the print instruction includes a selected paper type to be used for the print job and specifies an image forming apparatus to receive the print job

requesting paper availability information from the specified image forming apparatus before the print job is sent to the specified image forming apparatus

receiving the paper availability information from the specified image forming apparatus, wherein the paper availability information specifies what types of paper are available in the specified image forming apparatus

providing options to continue with the print job, to cancel the print job, or to modify the print instruction if the paper availability information indicates that the specified paper type is unavailable in the specified image forming apparatus.

8.   The method of operating an information processing apparatus of claim 7 further comprising, sending the print job to the image forming apparatus if the paper availability information indicates that the specified paper type is available in the image forming apparatus.

9. The method of operating an information processing apparatus of claim 7 further comprising, in the providing options step, providing an option to wait while the image forming apparatus is adjusted.

10. The method of operating an information processing apparatus of claim 7 further comprising, in the providing options step, providing an option to select a different image forming apparatus.

11. The method of operating an information processing apparatus of claim 10 wherein the option to modify the print instruction is compatible with the option to select a different image forming apparatus.

12. The method of operating an information processing apparatus of claim 10, wherein, before providing the option to select the different image forming apparatus,

requesting paper availability information from at least one different image forming apparatus

receiving the paper availability information from the respective different image forming apparatuses, wherein the paper availability information specifies what types of paper is available in the respective different image forming apparatuses.

13. The method of operating an information processing apparatus of claim 12, wherein the option to select the different image forming apparatus is only provided if the paper availability information from the respective different image forming apparatuses indicates

that the specified paper type is available in the respective different image forming apparatuses.

14. The method of operating an information processing apparatus of claim 12, further comprising providing options to direct the print job to one of the different image forming apparatuses.

15. The method of operating an information processing apparatus of claim 14 wherein the option to modify the print instruction is compatible with the option to select a different image forming apparatus.

16. The method of claim 7 wherein the selected paper type is a default paper type.

17. A computer program product comprising a computer usable medium having computer readable program code embodied therein for causing a processor to

receive a print instruction for a print job which includes a selected paper type to be used for the print job and specifies an image forming apparatus to receive the print job

request paper availability information from the specified image forming apparatus before the print job is sent to the specified image forming apparatus

receive the paper availability information from the specified image forming apparatus, wherein the paper availability information specifies what types of paper are available in the specified image forming apparatus

provide options to continue with the print job, to cancel the print job, or to modify the print instruction if the paper availability information indicates that the specified paper type is unavailable in the specified image forming apparatus.

18. The computer program product of claim 17 having computer readable program code embodied therein for causing the processor to send the print job to the image forming apparatus if the paper availability information indicates that the specified paper type is available in the image forming apparatus.

19. The computer program product of claim 17 having computer readable program code embodied therein for causing the processor to provide an option to wait while the image forming apparatus is adjusted.

20. The computer program product of claim 17 having computer readable program code embodied therein for causing the processor to provide an option to select a different image forming apparatus.

21. The computer program product of claim 20, wherein the option to modify the print instruction is compatible with the option to select a different image forming apparatus.

22. The computer program product of claim 20 having computer readable program code embodied therein for causing the processor to, before the option to select the different image forming apparatus is provided,

request paper availability information from at least one different image forming apparatus

receive the paper availability information from the respective different image forming apparatuses, wherein the paper availability information specifies what types of paper is available in the respective different image forming apparatuses.

23. The computer program product of claim 22 having computer readable program code embodied therein for causing the processor to provide the option to select the different image forming apparatus only if the paper availability information from the respective different image forming apparatuses indicates that the specified paper type is available in the respective different image forming apparatuses.

24. The computer program product of claim 22 having computer readable program code embodied therein for causing the processor to provide options to direct the print job to one of the different image forming apparatuses.

25. The computer program product of claim 24, wherein the option to modify the print instruction is compatible with the option to select a different image forming apparatus.

26. The computer program product of claim 17, wherein the selected paper type is a default paper type.

27. A method of operating a print server coupled to an image forming apparatus, the method comprising

receiving a print job from an information processing apparatus, wherein the print job specifies a paper type to be used for the print job

before the print job is sent to the image forming apparatus

requesting paper availability information from the image forming apparatus

receiving the paper availability information from the image forming apparatus, wherein the paper availability information specifies what types of paper are available in the image forming apparatus

notifying the information processing apparatus if the paper availability information indicates that the specified paper type is unavailable in the image forming apparatus.

28.   The method of operating a print server coupled to an image forming apparatus of claim 27 further comprising notifying the information processing apparatus of complete receipt of the print job, after receiving the print job.

29.   The method of operating a print server coupled to an image forming apparatus of claim 27 further comprising, after the step of notifying the information processing apparatus, receiving an instruction from the information processing apparatus to continue with the print job, to cancel the print job, or to modify the print job.

30.   The method of operating a print server coupled to an image forming apparatus of claim 27 further comprising sending the print job to the image forming apparatus.

31. The method of operating a print server coupled to an image forming apparatus of claim 27 further comprising deleting the print job.

32. A print server coupled to an image forming apparatus, the print server comprising a processor, a communications interface and a computer usable medium having computer readable program code embodied therein for causing the processor to

receive a print job from an information processing apparatus through the communications interface, wherein the print job specifies a paper type to be used for the print job

before the print job is sent to the image forming apparatus

request paper availability information from the image forming apparatus

receive the paper availability information from the image forming apparatus, wherein the paper availability information specifies what types of paper are available in the image forming apparatus

notify the information processing apparatus if the paper availability information indicates that the specified paper type is unavailable in the image forming apparatus.

33. The print server of claim 32, the computer readable program further for causing the processor to notify the information processing apparatus of complete receipt of the print job, after the print job is received.

34. The print server of claim 32, the computer readable program further for causing the processor to receive an instruction from the information processing apparatus to continue with the print job, to cancel the print job, or to modify the print job, after the information processing apparatus is notified.

35. The print server of claim 32, the computer readable program further for causing the processor to send the print job to the image forming apparatus.

36. The print server of claim 32, the computer readable program further for causing the processor to delete the print job.